[CLAIMS]

1. A method for reproducing an electronic image, comprising pixels having an input pixel value I_p, on a multilevel output device having N allowable output pixel values, comprising the steps of :
   - for each pixel p choosing a real subset S_p from said N allowable output pixel values, said subset S_p containing N_p allowed output pixel values where $0 < N_p < N$,
   - halftoning said electronic image by a multilevel halftoning algorithm by quantizing, for each of said pixels, said input pixel value to obtain a corresponding output pixel value out of the N_p allowed values in S_p,
   - rendering said image on said multilevel output device by rendering said pixels using said obtained output pixel values.

2. The method according to claim 1 wherein said real subset S_p is chosen as a function of said input pixel value I_p in said electronic image.

3. The method according to claim 1 wherein said real subset S_p contains two of said allowable output pixel values.

4. The method according to claim 1 wherein said input pixel value and said allowable output pixel values correspond to density levels and wherein said allowed output pixel values correspond to the two density levels closest to the density level corresponding to said input pixel value.

5. The method according to claim 1 wherein said multilevel halftoning algorithm is an error diffusion algorithm.

6. The method according to claim 5 wherein said multilevel halftoning algorithm is an error diffusion algorithm with a dot distribution correction in low and high intensity image regions.

7. A method for reproducing an electronic colour image, said electronic colour image comprising electronic colour component images, by reproducing said electronic colour component images, comprising the step of reproducing at least one of said electronic colour component images according to a method according to claim 1.

8. A method for reproducing a colour image, having k colour components, $k > 1$, each colour component comprising pixels having an input colorant value, by reproducing colour component images, on a multilevel output device having N_i allowable output colorant values for the i-th colour component $i=1,\ldots,k$, comprising the steps of :

- for any colour component i of any pixel p, choosing from said N_i allowable output colorant values a real subset S_{ip} containing N_{ip} allowed output colorant values where $0 < N_{ip} < N_i$, and
- generating a set S_p, containing all allowed colorant combinations for pixel p, by making the Cartesian product of the subsets S_{ip} for the individual colour components;
- halftoning said electronic image by a multilevel halftoning algorithm quantizing for each of said pixels said input colorant value to obtain a corresponding output colorant value in S_p ,
- rendering said image on said multilevel output device by rendering said pixels using said obtained output colorant values.

9. Multilevel output device, having N possible output pixel values corresponding to N possible output density levels, for reproducing a continuous tone image having pixels with an input pixel value as a multilevel halftone image, comprising :

- means for processing the input pixel value of pixels to obtain a corresponding output pixel value,
- a control circuit for restricting the allowed output pixel

values to a subset of all allowable output pixel values according to the input pixel value,

- means for rendering the pixels according to the obtained output pixel values as halftone dots having the corresponding density, thereby rendering the halftone image.